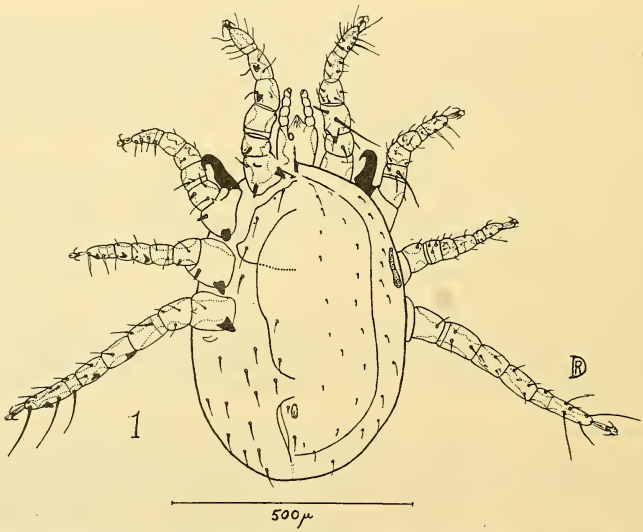
Venter. Sternal, metasternal, and genito-ventral shields fused to form holoventral shield. Sternal and metasternal setae and pores as in female; genital aperture on anterior margin of sternal area. Ventral area with four pairs of setae. Holoventral shield with longitudinal lines of weakness, along which the shield splits on application of undue pressure. Anal shield separate from holoventral shield, and similar to female. Ventral cuticle striated, with about eleven pairs of simple setae. Tritosternum as in female.

Legs. All coxae with heavily chitinized spurs; coxa II without large hooks; coxa IV also with long, simple seta. All other segments of legs I and II (except tarsus I and tibia II) with retrorse spurs ventrally, and with normal setae dorsally, except for long seta on femora I and II. Femur II with large flask-shaped club ventrally. Legs III and IV with setation very strong ventrally and less so dorsally.

Chelicerae with blade-like, untoothed digits, which are shorter than in female; blades 39μ long.



Text-fig. 1.—*Echinonyssus validipes*, n. sp. Female. Left, ventral view; right, dorsal view.

Nymph.

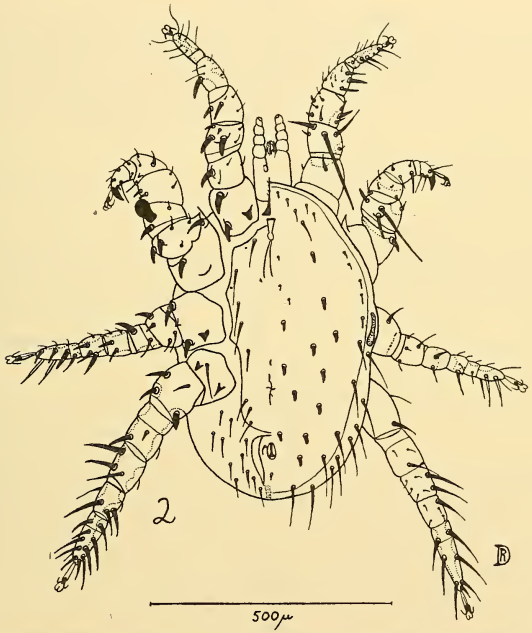
The following notes are based on two nymphs, in both of which a developing male is visible. *Dorsal shield* entire, with nineteen pairs of simple setae, made up of twelve pairs of long marginal, three pairs of very small anterior discal, and four pairs of longer posterior discal setae. *Peritreme* as in adult.

Venter with elongate-oval shield (somewhat narrower than male holoventral shield) extending from just behind base of tritosternum to level of posterior margin of coxae IV; with five pairs of setae (representing future sternal, metasternal, and genital setae). Anal shield separate and similar to adult.

Legs with armature and setation generally similar to adult, but not so well developed; apical spur on tarsus II and club on femur II absent, but adult structures clearly visible beneath nymphal cuticle.

Distribution.—Known only from the type locality and host in south-east Queensland.

Taxonomic notes.—Hirst (1925) erected the genus *Echinonyssus* for a single specimen of *E. nasutus* Hirst, 1925. He stressed as a generic character, being followed by da Fonseca (1948), the forward projection of the dorsal shield into a large, median, hook-like process. Dr. G. Owen Evans, of the British Museum, has kindly re-examined the specimen for me, and believes "the anterior hook is a prolongation of the heavily sclerotized vertex". *E. validipes* does not possess this process, but the female has the following important characters in common with Hirst's species: an immense hook on coxa II, all coxae heavily armed, and setae of dorsal shield very short and inconspicuous. The following key (also partly based on Dr. Evans' information) will serve to separate the females of the two species.



Text-fig. 2.—*Echinonyssus validipes*, n. sp. Male. Left, ventral view; right, dorsal view.

Key to females of the two known species of Echinonyssus *Hirst.*

1*a*. Dorsal anterior hook present on vertex; sternal shield reduced, concave posteriorly; genito-ventral shield with one pair of setae (the second pair figured by Hirst being actually in slight emarginations of the shield); peritreme extending forward beyond coxa II; no long setae present dorsally on femora I and II; apical segments of legs without retrorse spurs ..... *E. nasutus* Hirst, 1925.

1*b*. Dorsal anterior hook absent; sternal shield not reduced, slightly convex posteriorly; genito-ventral shield with two pairs of setae; peritreme much reduced, situated over coxa III; long seta present dorsally on femora I and II; some apical segments of legs with retrorse spurs ..... *E. validipes*, n. sp.

The relationship of the hosts must also be kept in mind. *Tupaia* is a typically Oriental insectivore (Eutheria), while *Potorous* is a typically Australian marsupial (Metatheria). However, in the absence of the male of *E. nasutus*, a new genus has not been erected for *E. validipes*, even though it differs markedly in some characters from Hirst's species.

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